

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

January 5th, 1921.—Mr. R. D. Oldham, F.R.S.,
President, in the Chair.

The following communication was read:—

‘The Carboniferous Limestone of the Wickwar-Chipping Sodbury Area (Gloucestershire).’ By Miss Edith Bolton, M.Sc., and Miss M. C. Tuck, B.Sc.

The Authors describe, in Vaughan’s notation, from both the lithological and the faunal standpoints, the north-eastern rim of the Carboniferous Limestone ‘horseshoe’ round the Bristol Coalfield.

The chief points of interest in the area, and of demarcation from the type-section of the Avon Gorge, are:—

- (1) The marked development and fossiliferous nature of the ‘Sub-Oolite’ band of the *Caninia* Zone.
- (2) The great thickness of the Concretionary Beds of the main *Seminula* Zone.
- (3) The *Modiola* Phase at the top of S_2 is further marked by algal limestones, in addition to concretionary beds.
- (4) The unfossiliferous character and variable lithological features of the beds forming the top of the main *Seminula* Zone and the Lower *Dibunophyllum* Zone make it impossible to draw any line of demarcation between these two zones. These beds are therefore designated ‘ S_2 - D_1 junction.’
- (5) The early oncoming of ‘Millstone Grit’ conditions.

February 2nd, 1921.—Mr. R. D. Oldham, F.R.S.,
President, in the Chair.

The following communication was read:—

‘A New Species of Blattoid (*Archimylacris*) from the Keele Group (Stephanian) of Shropshire.’ By Herbert Bolton, M.Sc., F.R.S.E., F.G.S.

The Author describes the basal portion of a new type of Blattoid

wing found by Mr. John Pringle in core-material of purple marly shale, collected by Mr. T. C. Cantrill from a borehole for water at Wellington (Shropshire).

The wing belongs to the genus *Archimylacris*, and is closely allied to *A. lerichei* Pruvost and *A. dessaillyi* Leriche, from the upper beds of the Westphalian of Liévin (Pas de Calais), Northern France.

February 23rd, 1921.—Mr. R. D. Oldham, F.R.S.,
President, in the Chair.

The following communication was read:—

‘On *Saccammia carteri* Brady, and the Minute Structure of the Foraminiferal Test.’ By Prof. William Johnson Sollas, M.A., D.Sc., LL.D., F.R.S., F.G.S.

In this description of *S. carteri* certain anomalies of its structure described by Brady are explained as due to mineralization by quartz and the deposition of ‘beekite.’ The wall of the test, which is very thin, consists of a mosaic of calcite and (in its present state) is imperforate.

In endeavouring to establish its true nature an investigation was made into the composition and structure of the test in the Vitreous and Porcellanous Foraminifera. It was found that in both groups an organic basis is absent, and that the substance of the test consists wholly of calcite. The distinctive difference lies in the granular and felted structure which characterizes the Porcellana: as a consequence of this structure they are white and apparently opaque, any light which enters the test being scattered and dispersed by repeated internal refraction and reflection.

It is shown that many Carboniferous foraminifera, such as *Fusulina*, unite the perforations of the Vitrea with the porcellanous test of the Imperforata; while a living imperforate form (*Cornuspira*) possesses a test which in some species is porcellanous, in others arenaceous (*Amnodiscus*), and in yet others vitreous (*Spirulina*), but in the last case with the exceptional character that the calcite test is often optically a single homogeneous crystal.

Perforate foraminifera and porcellanous forms as well occur in association with *Saccammia*, and these still retain the original structure of their tests, a structure in both cases wholly different from that of *Saccammia*; the structure of *Saccammia* is not inconsistent with that of the arenaceous foraminifera, and thus one is led to assign this fossil to the group originally proposed for it by Brady.